



	TRAD	ı			
Form PT	Form PTO-1449 Modified			Application No. 10/699,240	
Cited	ent and Publications I by Applicant I sheets if necessary)	Applicant Phillip Da	n Cook, et al.		
	tment of Commerce Trademark Office	Filing Dat October 3		Group Not Yet Assigned	
		Çonfirmat Not Yet A			
ОТН	ER DOCUMENTS (Includ	ling Author	, Title, Date, I	Pertinent Pages, Etc.)	
JR 1	Alul, R. et al., "Oxalyl-C Oligonucleotide Derivati			Synthesis of Sensitive rch 1991, 19(7), 1527-1532.	
JR		•		kemia Virus in Cultured Cells by ves", Molecular Pharm., 1975, 12,	
* JR	Ausubel, F.M. et al., eds. Sons, New York, 1993.	Ausubel, F.M. et al., eds., "Current Protocols in Molecular Biology", John Wiley & Sons, New York, 1993.			
JR 4	Beaucage, S. and Iyer, "A Phosphoramidite Approa		•	of Oligonucleotides by the 3(12), 2223-2311.	
JR 5	Bielinska, A. et al., "Reg Phosphorothioate Oligon				
JR	Blackburn, G. and Gait, IRL PRess, New York, 1		cids in Chemist	ry and Biology", Chapter 3, p. 98,	
JR		lizing the P		he Quantitation of Microgram ein-Dye Binding", Analytical	
JR 8	Reactions with 2-O-Me	Chavis et al., "Synthesis of 2',3'-Differentiated Ribonucleosides via Glycosylation Reactions with 2-O-Me or 2-O-TBDMS Ribofuranose Derivatives. 1. Pyrimidine Series", J. Org. Chem., 1982, 47, 202-206			
JR	oligodeoxyribonucleotid	Cotton et al., "2-O-methyl, 2'-O-ethyl oligoribonucleotides and phosphorothioate oligodeoxyribonucleotides as inhibitors of the <i>in vitro</i> U7 snRNP-dependent mRNA processing event", <i>Nucl. Acids Res.</i> , 1991, 19(10), 2629-2635			
JR 10	Coussells, L. et al., Iviul			ovine and Human Protein Kinase s", Science 1986, 233, 859-866.	
EXAMINER	/Jezia Riley/		DATE CONS	SIDERED 06/19/2006	

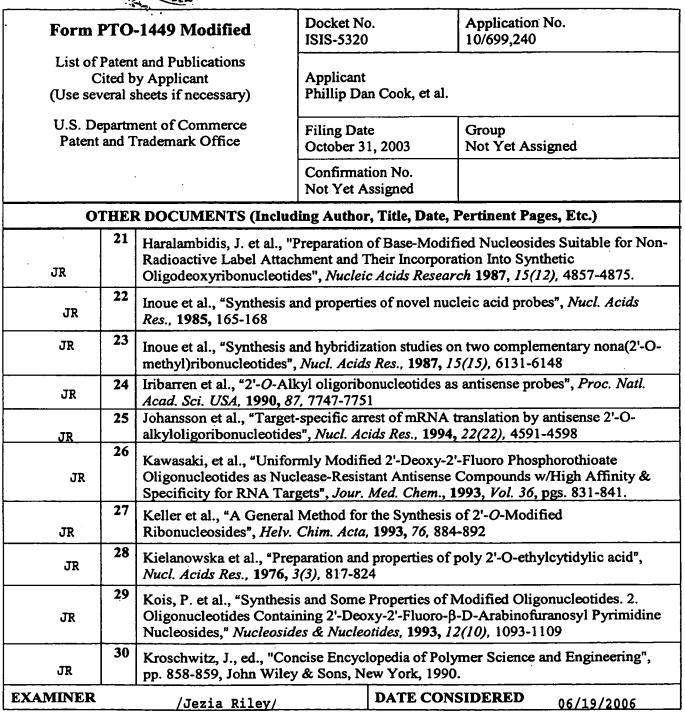
^{*} A copy of this reference will not be forwarded to the U.S. Patent and Trademark Office since it is believed to be too voluminous and easily obtainable by the Examiner.





Form 1	Form PTO-1449 Modified			Application No. 10/699,240			
C	List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Phillip Dan Cook	Applicant Phillip Dan Cook, et al.			
		nent of Commerce Trademark Office	Filing Date October 31, 2003	Group Not Yet Assigned			
			Confirmation No. Not Yet Assigned	1			
O	THE	R DOCUMENTS (Inclu	ding Author, Title,	Date, Pertinent Pages, Etc.)			
JR	11	Dean, N. et al., "Inhibition of Protein Kinase C-α Expression in Human A549 Cells by Antisense Oligonucleotides Inhibits Induction of Intercellular Adhesion Molcelule 1 (ICAM-1) mRNA by Phorbol Esters", <i>The J. of Biol. Chem.</i> 1994, 269(23), 16416-16424.					
JR	12		Divakar et al., "Reaction Between 2,2'-Anhydro-1-β-D-arabinofuranosyluracil and Thiolate Ions", J. Chem. Soc. Perkin Trans., 1982, 1625-1628				
JR	13	Edmonds et al., "Structural Characterization of Four Ribose-methylated Nucleosides from the Transfer RNA of Extremely Thermophilic Archaebacteria", J. Chem. Soc., Chem. Commun., 1987, 909-910					
JR	14		Englisch, U. and Gauss, "Chemically Modified Oligonucleotides as Probes and Inhibitors", Angew. Chem. Int. Ed. Engl. 1991, 30, 613-629.				
JR	15			rties of 2'-deoxy-2'-methylthio-pyrimidine & - 'J. of Heterocyclic Chem., 1993, 30, 1277-1287			
JR	16	Gibson, K. and Benkovic, " Acids Research 1987, 15(16)		n of Derivatizable Oligonucleotides", Nucleic			
JR	17	Gotfredsen, C.H. et al., "No Methylarabinonucleoside,"		e Analogues Containing A 2'-O- 7), 6941-6944			
JR	18	Graham, F.G. and Van der 5 DNA", Virology 1973, 52		or the Assay of Infectivity of Human Adenovirus			
JR	19		Greene, T. and Wuts, "Protective Groups in Organic Synthesis", John Wiley & Sons, New York, 2nd edition, 1991, Chap. 2, 6, 7.				
JR	20	Guinosso et al., "Synthesis and Biophysical and Biological Evaluation of 2'-Modified Antisense Oligonucleotides", Nucleotides & Nucleotides, 1991, 10(1-3), 259-262					
EXAMINER		/Jezia Ril	ey/ DATE	CONSIDERED 06/19/2006			







Form	РТО	-1449 Modified	Docket N ISIS-5320		Application N 10/699,240	No.
c			Applicant Phillip Dan Cook, et al.			
		nent of Commerce Frademark Office	Filing Da October 3		Group Not Yet Assig	gned
	_		Confirma Not Yet A			
O,	THE	R DOCUMENTS (Includ	ing Autho	r, Title, Date, l	Pertinent Page	es, Etc.)
JR	31	Krug, A. et al., "Synthesi fluoronucleosides for cle 49, 161-166				
JR	32	Kusmierek et al., "Alkylation of Cytidine-5'-Phosphate: Mechanisms of Alkylation, Influence of O'-Alkylation of Susceptibility of Pyrimidine Nucleotides to Some Nucleolytic Enzymes, and Synthesis of 2'-O-Alkyl Polynucleotides", Acta Biochimica Polonica, 1973, 20(4), 365-381				
JR	33	Kusmierek et al., "Preparation and stability of the helical form of poly 2'-O-ethyluridylic acid", Biochem. Biophy. Res. Commun., 1973, 53(2), 406-412				
JR	34	Kusmierek et al., "Prepar Nucleosides", Biochem.,			ves of Cytosine	e and Uracil
JR	35	Lamond, et al., "Antisens properties & applications 123-127				
JR	36	Manoharan, M., "Design functionality placement," and Lebleu (Eds.), CRC	' 310-312 i	n "Antisense Re		
JR	37	March, J., "Advanced or Wiley & Sons, New York	_	•	mechanisms, a	and structure," John
JR	38	Martin, "A New Access the Alkylated Oligoribonucle		·		I
JR	39	Miefeld, R., et al., "Gene by expression of cloned	•			
JR	40	Mikke et al., "Oligo(dG) ₁₂₋₁₈ aggregates result in non-homogeneity of oligo(dG) ₁₂₋₁₈ poly® type primer template", Nucl. Acids Res., 1977, 4(4), 1111-1122				
EXAMINER		/Jezia Rile	γ/	DATE CONS	SIDERED	06/19/2006





				•			
Form	PTO	-1449 Modified	Docket No. ISIS-5320	Application No. 10/699,240			
(Cited b	t and Publications by Applicant sheets if necessary)	Applicant Phillip Dan Cook, et al.				
		nent of Commerce Frademark Office	Filing Date October 31, 2003	Group Not Yet Assigned			
			Confirmation No. Not Yet Assigned				
О	THE	R DOCUMENTS (Includ	ling Author, Title, Date,	Pertinent Pages, Etc.)			
JR	41		ethylcytidylate, an inhibituc. Acids Res., 1976, 3(6),	or and poor template for AMV 1603-1611			
JR	42			leotides containing 2'-deoxy gaps Chem., July 5, 1993, 268(19),			
JR	43	Potential Antisense Ager	nts," Jour.Med. Chem., 19				
JR	44		Fragments containing Mo	c Acids and Related Compounds. diffied Nucleosides," Chem.			
JR	45		nyl Pyrimidine Nucleoside	es (1)", J. Carbohydrates,			
JR	46	Methoxy-2-pyrimidinone 1	-β-D-Ribofuranoside into 2'	ethylation and Transformation of 4- -O-Methyl Nucleoside Components Biochem., 1971, 10(19), 3591-3597			
	47						
JR	48	Sambrook, J. et al., "Mol Laboratory Press, 1989.	ecular Cloning, A Labora	tory Manual", Cold Spring Harbor			
JR	49	Shimizu, M. et al., "Effects of 5-Methyl Substitution in 2'-O-Methyl Oligo- (Pyrimidine) Nucleotides on Triple-Helix Formation," <i>Bioorg. Med. Chem. Letts.</i> , 1994, 4(8), 1029-1032					
JR	JR Singer et al., "O²-Alkylcytidine A New Major Product of Neutral, Aqueous Reaction of Cytidine with Carcinogens", FEBS Lett., 1976, 63(1), 85-88						
EXAMINER	/Jezia Riley/						
* 1			adad to the TTO D to the				

^{*} A copy of this reference will not be forwarded to the U.S. Patent and Trademark Office since it is believed to be too voluminous and easily obtainable by the Examiner.





Form 1	РТО	-1449 Modified	Docket No ISIS-5320		Application No. 10/699,240
C			Applicant Phillip Dan Cook, et al.		
		nent of Commerce Trademark Office	Filing Dat October 3		Group Not Yet Assigned
			Confirmat Not Yet A		
O'	THE	R DOCUMENTS (Includ	ing Author	, Title, Date, I	Pertinent Pages, Etc.)
JR	51	Singer et al., "Alkylation Neutrality", Biochem., 19			d with Ethylnitrosourea at
JR	52	Solomons, T.W., "Organic Chemistry," John Wiley & Sons, New York, 1992, 5th Ed. 432-433			
JR	5,3	Sproat et al., "2'-O-Alkylologoribonucleotides: Synthesis and Applications in Studying RNA Splicing", <i>Nucleosides & Nucleotides</i> , 1991, 10(1-3), 25-36			
JR	54	Sterzycki, R., et al., "Syr pyrimidine nucleosides,"			ty of several 2'-fluoro-containing 2150-2157
JR	55	Tazawa et al., "A Novel Biochem., 1972, 11(26),		or the Synthesi	s of 2'-O-Alkyl Nucleotides",
JR	56	Uhlmann, E., et al., "Ant Chem Reviews, 1990, 9			new therapeutic principle,"
JR	57	Verheyden et al., "Synthe Org. Chem., 1971, 36(2)		e Pyrimidine 2'	-Amino-2'-deoxynucleosides", J.
JR	58	Vorbruggen, H. et al., "A Angew. Chem. Internat.			2-Thiopyrimidine Nucleosides",
JR	59	Vorbruggen, H. and Strehlke, "Eine einfache Synthese von 2-Thiopyrimidin- nucleosiden", Chem. Ber. 1973, 106, 3039-3061.			
JR	60	Wagner et al., "Antisense Gene Inhibition by Oligonucleotides Containing C-5 Propyne Pyrimidines," Science, 04 June 1993, Vol. 260, pgs. 1510-1513			
EXAMINER		/Jezia Riley/			





Form	РТО	-1449 Modified	0.				
C	List of Patent and Publications Cited by Applicant (Use several sheets if necessary)			Cook, et al.			
		nent of Commerce Trademark Office	Filing Date October 31		Group Not Yet Assign	ned	
			Confirmati Not Yet As				
.0	THE	R DOCUMENTS (Includ	ling Author	Title, Date, I	Pertinent Pages	, Etc.)	
JR	61	Wagner et al., "Preparati Nucleosides", J. Org. Ch			Some Organoti	n Derivatives of	
JR	62	Wagner et al., "A simple O-ethyl ribonucleosides- 5965-5971					
JR	63	Williams, D.M. et al., "Properties of 2'-Fluorothymidine-Containing Oligonucleotides: Interaction with Restriction Endonuclease <i>EcoRV</i> ," <i>Biochem.</i> , 1991, 30, 4001-4009					
JR	64		Wright, P. et al., "Large Scale Synthesis of Oligonucleotides via Phosphoramidite Nucleosides and a High-loaded Polystyrene Support", <i>Tetrahedron Letters</i> 1993, 34(21), 3373-3376.				
JR	65	Wu, H. et al., "Inhibition Oligodeoxyribonucleotic				ble-Stranded	
JR	66	Biol., 1974, 86, 843-853					
JR	67	beads for solid-phase oli 3821	Damha, M.J., "An improved procedure for derivatization of controlled pore glass beads for solid-phase oligonucleotide synthesis," <i>Nucl. Acids Res.</i> , 1990, 18, 3813-				
JR	68	C.F. (Ed.), Raven Press,	New York, 1	992 , 95-107			
JR	69	Freier, S.M., et al., "Solv 1983, 22, 1107-1131	Freier, S.M., et al., "Solvent effects on the dynamics of (dG-dCO ₃ ," <i>Biopolymers</i> , 1983, 22, 1107-1131				
JR	70	Lesnik, E.A., et al., "Oligodeoxynucleotides containing 2'-O-modified adenosine: synthesis and effects on stability of DNA:RNA duplexes," <i>Biochemistry</i> , 1993 , <i>32</i> , 7832-7838					
EXAMINER		/Jezia Riley/		DATE CONS	SIDERED	06/19/2006	





Form 1	HARM PITE AAY VIANITIEN		Docket No. ISIS-5320	Application No. 10/699,240			
C	List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Phillip Dan Cook, et al.				
		nent of Commerce Frademark Office	Filing Date October 31, 2003	Group Not Yet Assigned			
			Confirmation No. Not Yet Assigned	·			
O'	THE	R DOCUMENTS (Includ	ing Author, Title, Date,	Pertinent Pages, Etc.)			
JR	71		ective inhibition of mutant es," J. Biol. Chem., 1992,	Ha-ras mRNA expression by 267, 19954-19962			
JR	72	stability: thermodynamic	es of double-helix formation	ring constributions to helix ons with CCGG, CCGGp, "Biochemistry, 1983, 22, 256-263			
JR	73		Puglisi, J., et al., "Absorbance melting curves of RNA," Methods in Enzymology,				
JR JR	74		Ueda, t., et al., "Synthesis of 2-thiouridine and 6-Methyl-3-(β-D-ribofuranosyl)-2-thiouracil," Chem. Pharm. Bull., (Tokyo), 1970, 18, 1491-1493				
JR	75	99, 4219-4228	Olmstead, et al., "Gas-Phase nucleophilic displacement reactions," J.A.C.S., 1977,				
JR	76	1995 , <i>374</i> , 546-549		r direct B-cell activation," Nature,			
JR	77	polynucleotides and the Biochem., 1974, 13(13),	Rottman, et al., "Influence of 2'-O-alkylation on the structure of single-stranded polynucleotides and the stability of 2'-O-alkylated polynucleotide complexes," Biochem., 1974, 13(13), 2762-2771				
* JR	78	Agrawal, S. (Ed.), "Proto Totowa, NJ, 1993	ocols for Oligonucleotides	and Analogs," Humana Prses,			
	79	Commun. 1973; 36, 423-	427	ogues, CLV," Coll. Ezech. Them.			
JR	80	Townsend, L.B., "Chemistry of nucleosides and niculeotides," <i>Plenum Press, NY</i> , 1988, <i>Vol. 1</i> , 59-67					
EXAMINER							
* 1	Alin -	-f	and ad the IIC Detent o	nd Trademark Office since it is			

^{*} A copy of this reference will not be forwarded to the U.S. Patent and Trademark Office since it is believed to be too voluminous and easily obtainable by the Examiner.



Sheet 9 of 12

Form l	PTO-1449 Modified		Docket No. ISIS-5320	Application No. 10/699,240	
C	ited b	t and Publications y Applicant heets if necessary)	Applicant Phillip Dan Cook, et al.		
		nent of Commerce Trademark Office	Filing Date October 31, 2003	Group Not Yet Assigned	
			Confirmation No. Not Yet Assigned		
O'I	ГНЕ	R DOCUMENTS (Includ	ing Author, Title, Date, l	Pertinent Pages, Etc.)	
JR	81	Walker, D-C., et al. (Eds.), "Nucleoside analogues – chemistry, biology, and medic applications, <i>Plenum Press</i> , 1979, 71-164			
				:	
				·	
EXAMINER		/Jezia Riley/	DATE CON	SIDERED 06/19/2006	

© 2003 WW



				Docket No. ISIS-5320	Applica 10/699,	ation No. 240	
	Cite	tent and Publication d by Applicant al sheets if necessa		Applicant Phillip Dan Cook, et al.			
		rtment of Comme d Trademark Offic		Filing Date October 31, 2003	Group Not Ye	t Assigned	i
				Confirmation No. Not Yet Assigned			
		Ţ	J. S. PATENT	DOCUMENTS			
Examiner Initial		Document No.	Date	Name		Class	Subclass
JR	82	3,687,808	08/29/72	Merigan et al.		195	28N
JR	83	4,511,713	04/16/85	Miller et al.		536	27
JR	84	5,013,830	05/07/91	Ohtsuka et al.		536	27
JR	85	5,210,264	05/11/93	Yau		558	167
JR	86	5,386,023	01/31/95	Sanghvi et al.		536	25.3
JR	87	5,466,786	11/14/95	Buhr et al.		536	26.26
JR	88	5,470,967	11/1995	Huie, et al.		536	24.3
JR	89	5,606,049	02/25/97	Vaghefi		536	28.5
JR	90	5,750,673	05/12/98	Martin		536	26.1
JR	91	5,728,525	03/1998	Conrad		435	6
JR	92	5,760,202	06/1998	Cook, et al.	*	536	22.1
JR	93	5,792,847	08/11/98	Buhr, et al.		536	23.1
JR	94	6,222,025	04/2001	Cook, et al.		536	23.1
EXAMINER		/Jezia	Riley/	DATE CONSIDER	RED	06/19	/2006



Form	PT	O -1	 449	Mo	dified
------	----	-------------	-------------	----	--------

List of Patent and Publications Cited by Applicant (Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office Docket No. Application No. ISIS-5320 10/699,240

Applicant

Phillip Dan Cook, et al.

Filing Date
October 31, 200

Group
Not Yet Assigned

October 31, 2003

Confirmation No.
Not Yet Assigned

FOREIGN PATENT DOCUMENTS

Examiner	r			Trans	slation	
Initial		Document No.	Date	Country	YES	NO
JR	95	WO 91/15499	10/17/91	PCT		
JR	96	WO 92/05186	4/1992	PCT		
JR	97	WO 92/13869	08/20/92	PCT		
JR	98	WO 93/10820	10.06.93	PCT		
JR	99	WO 94/02499	03.02.94	PCT		
JR	100	WO 94/17094	04.08.94	PCT		
JR	101	WO 95/20597	08/03/95	PCT		,
JR	102	WO 95/35102	12/1995	PCT		
JR	103	4110085 A1	10/01/92	Germany	·	-
JR	104	0 260 032 A3	03/16/88	EP		
JR	105	0 339 842 A2	11/02/89	EP		
JR	106	0 614 907 A1	09/14/94	ЕРО		
JR	107	0 629 633 A2	12/21/94	EPO		
JR	108	0 714 907 A1	06/05/96	ЕРО		
EXAMINER		/Jezia Riley/		DATE CONSIDERED	06/	19/2006





Form PTO-1449 Modified

List of Patent and Publications Cited by Applicant (Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office

Docket No.	Application No.
ISIS-5320	10/699,240

Applicant

Phillip Dan Cook, et al.

Filing Date

Group

October 31, 2003

Not Yet Assigned

Confirmation No. Not Yet Assigned

FOREIGN PATENT DOCUMENTS

Examiner Initial			Date		Translation	
		Document No.		Country	YES	NO
JR	109	2-264792	10/29/90	Japan		
JR	110	6-345791	12/20/94	Japan		x
JR	111	6-507883	09/08/94	Japan		X
JR	112	7-002889	01/06/95	Japan		x
JR	113	7-300493	11/14/95	Japan		x
JR	114	8-208686	08/13/96	Japan		х
JR	115	9-508134	08/19/97	Japan		x
JR	116	89-85456	04/1989	Japan		
	-					
		·				
<i>"-1</i>						
						•
EXAMINER /Jezia Riley/				DATE CONSIDERED		06/19/2006